

WHAT IS CLAIMED IS:

1. A network management system comprising:
a first connection to a wide area network;
wherein the first connection is configured to receive management information via
a virtual connection from a data communication node;
wherein the management information includes service level information for a
transparent connection between the data communication node and the
wide area network, the transparent connection carrying encapsulated data
traffic, the management information further including equipment failure
information for a bridging node configured to generate the encapsulated
data traffic.
2. The network management system as recited in Claim 1, wherein the
transparent connection is a Digital Subscriber Line (DSL) connection that carries Frame
Relay packets encapsulated according to a DSL protocol.
3. The network management system as recited in Claim 1, wherein the
management information is according to a Simple Network Management Protocol
(SNMP).
4. The network management system as recited in Claim 1, wherein the
transparent connection is an intermediate network to the wide area network and a local
area network.

5. A network management system comprising:
a data network report collector; and
a data router having a first interface coupled to a wide area network;
wherein data collected via the first interface includes management information
regarding a service level of a first network for carrying data traffic
between a local area network and the wide area network.
6. The network management system as recited in Claim 5, wherein the
management information further includes equipment fault information for a bridging
node configured to transfer the data traffic from the local area node to the first network.
7. The network management system as recited in Claim 6, wherein the data
traffic is communicated between the local area network and the wide area network
according to a first protocol and the bridging node encapsulates the data traffic from the
local area node according to a second protocol.
8. The network management system as recited in Claim 7, wherein the first
protocol is a frame relay type protocol and the second protocol is a Digital Subscriber
Line (DSL) protocol.
9. The network management system as recited in Claim 7, wherein a second node
de-encapsulates the data traffic and transmits the data traffic to the wide area network.
10. The network management system as recited in Claim 9, wherein the second
node is a Digital Subscriber Line Access Multiplexer (DSLAM).

11. A method comprising:
collecting management information for a transparent connection carrying data traffic;
using the management information collected to identify equipment failure information; and
using the management information collected to identify network service provider service level information.

12. The method as recited in Claim 11, further comprising:
presenting the service level information to a customer.

13. The method as recited in Claim 11, further comprising:
providing notification of a detected equipment failure.

14. The method as recited in Claim 11, wherein the transparent connection is a Digital Subscriber Line (DSL) connection between a local area network and a wide area network.

15. The method as recited in Claim 11, wherein the transparent connection is an intermediate network between a local area network and a wide area network.

16. A network management system configured to collect management information for one or more transparent Digital Subscriber Line (DSL) connections carrying encapsulated Frame Relay packets.

17. The network management system of Claim 16, wherein the management information comprises equipment fault information of a DSL bridge and service level information of the one or more transparent DSL connections.

18. The network management system of Claim 16, wherein the one or more DSL connections are each coupled between a DSL bridge and a Digital Subscriber Line Access Multiplexer (DSLAM).

19. The network management system of Claim 18, wherein the DSL bridge encapsulates Frame Relay packets sent from a Frame Relay transmitter and the DSLAM de-encapsulates the Frame Relay packets prior to forwarding the Frame Relay packets to a wide area network.

20. The network management system of Claim 18, wherein the DSLAM encapsulates Frame Relay packets sent from a wide area network and the DSL bridge de-encapsulates the Frame Relay packets prior to forwarding the de-encapsulated Frame Relay packets to a Frame Relay receiver.

21. The network management system of Claim 16, wherein the network management system collects the management information via a Frame Relay network.

22. The network management system of Claim 16, wherein the network management system is configured to collect the management information according to a Simple Network Management Protocol (SNMP).

23. The network management system of Claim 16, wherein the network management system is configured to collect the management information via a virtual circuit from a data communication node coupled to at least one of the DSL connections.

24. The network management system of Claim 16, wherein the encapsulated Frame Relay packets are carried on a virtual circuit between a Frame Relay transmitter and a Frame Relay receiver.

25. The network management system of Claim 24, wherein the Frame Relay transmitter and the Frame Relay receiver are implemented as channel service unit/data service units.

26. A network management system comprising:
a report collector; and
a middleware server configured to collect management information for a
transparent Digital Subscriber Line (DSL) connection via a Frame Relay
network and configured to forward the collected management information
to the report collector.

27. The network management system of Claim 26, wherein the management
information comprises customer equipment fault information and service level
information of the transparent DSL connection.

28. The network management system of Claim 27, wherein the customer
equipment is a DSL bridge that encapsulates Frame Relay packets.

29. The network management system of Claim 26, wherein the report collector is
configured to display the management information to a user.

30. The network management system of Claim 26, wherein the management
information is used to differentiate between customer equipment failure and a service
level agreement violation.

31. The network management system of Claim 26, wherein frame relay packets
are transparently encapsulated according to a DSL protocol and sent over the DSL
connection.

32. The network management system of Claim 26, further comprising:
a router coupled to the Frame Relay network and the middleware server.

33. A method comprising:
collecting management information for a transparent Digital Subscriber Line (DSL) connection carrying encapsulated Frame Relay packets between Frame Relay data communication nodes; and
differentiating between a network outage caused by customer equipment failure and a service provider service level event using the management information.

34. The method of Claim 33, wherein the management information comprises equipment fault information of a DSL bridge and service level information of the transparent DSL connection.

35. The method of Claim 33, wherein the management information is collected via a Frame Relay network.

36. The method of Claim 33, wherein the management information is collected via a virtual circuit from one of the Frame Relay data communication nodes, wherein the virtual circuit communicates according to a Frame Relay protocol.

37. The method of Claim 33, wherein at least one of the data communication nodes is implemented as a channel service unit/data service unit.